PCT/FR2004/001476

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (Currently Amended) A molding device for blow-molding or stretch-blow-

molding containers from heated thermoplastic preforms, said device comprising at least one

mold [(1)] comprising at least two half-molds [(1a, 1b)] that can be moved with respect to

each other between an open position in which they are parted from one another and a closed

position in which they are firmly pressed against one another via collaborating respective bearing

faces [[(2a, 2b)]] defining a parting line [[(3)]], locking means [[(14)]] being provided to lock the

two half-molds [[(1a, 1b)]] in the closed position, which locking means [[(14)]] comprising on at

least one side of the mold, a first lock element [[(15)]] in the form of a hook secured fixedly to

the first half-mold [[(1a)]] along the edge of the bearing face [[(2a)]] thereof, a second lock

element [[(16)]] in the form of a hook inverted with respect to the previous one and mounted

such that it can pivot, on a rotation surface, on the second half-mold [[(1b)]], and actuating

means functionally associated with said second lock element in such a way as to move the latter

transversely between a locked position in which it is engaged with the first lock element to lock

the two half-molds in the closed position and an unlocked position in which it is disengaged from

the first lock element to release the two half-molds that can then be parted from one another,

characterized in that wherein, in addition:

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- the first and second hook-shaped lock elements [[(15, 16)]] extend respectively

over the entire height of the first and second half-molds [[(1a, 1b)]],

the second half-mold [[(1b)]] has, along the edge of its bearing face [[(2b)]] and

over at least most of its height, a radially projecting flange [[(17)]] shaped, on its face facing

away from the bearing face [(2b)], as an arc of a circle and able to constitute a rotation surface

[[(18)]], and

said second lock element [[(16)]] belongs to one end of a moving part [[(19)]]

provided with a transverse projecting flange [[(20)]] defining a bearing surface [[(21)]] in the

shape of an arc of a circle facing toward the second hook-shaped lock element [[(16)]] and able

to bear continuously over the entire height of said rotation surface [[(18)]] of the second lock

element [[(1b)]],

whereby, when the mold is closed and locked and subjected to the blowing pressure, the

force to which the second half-mold is subjected is reacted, by said moving part, substantially

continuously over most of its height via said rotation surface.

2. (Currently Amended) The molding device as claimed in claim 1, in which the

mold [(1)] is of the hinged type with the two half-molds [(1a, 1b)] articulated to one another

in terms of rotation on a shaft [[(8)]] substantially parallel to one side of the parting line [[(3)]],

characterized in that wherein said locking means [[(14)]] are provided on the opposite side of the

two half-molds to said shaft [[(8)]].

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3. (Currently Amended) The molding device as claimed in claim 1 [[or 2]], in

which each half-mold [[(1a, 1b)]] comprises a shell holder [[(5a, 5b)]] to which there is

internally fixed a shell [[ $(6\underline{a}, 6\underline{b})$ ]] equipped with a molding half-cavity [[ $(4\underline{a}, 4\underline{b})$ ]] the parting

line [[(6)]] being defined by the two shells [[(6a, 6b)]] pressed together when the mold is in the

closed position, characterized in that wherein the locking means [[(14)]] are supported by the

two shell-holders  $[[(5\underline{a}, 5\underline{b})]]$ .

4. (Currently Amended) The molding device as claimed in any one of claims 1 to 3,

characterized in that claim 1, wherein said face of the protruding flange [[(17)]] of the second

half-mold [[ $(1\underline{b})$ ]] which faces away from the edge of the bearing face [[ $(2\underline{b})$ ]] is hollowed out

[[(22)]] in the shape of an arc of a circle and houses a rotation spindle [[(23)]] the free surface of

which constitutes said rotation surface [[(18)]].

5. (Currently Amended) The molding device as claimed in claim 4, characterized in

that wherein the rotation spindle [[(23)]] of the moving part [[(19)]] supporting the second lock

element [[(16)]] is supported by a small number of hollowed-out clevises secured to the second

half-mold.

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6. (Currently Amended) The molding device as claimed in claim 5, characterized in

that wherein the clevises are two in number, distant from one another and, in particular, situated

near the respective ends of the spindle.

7. (Currently Amended) The molding device as claimed in claim 4, characterized in

that wherein the rotation spindle of the moving part supporting the second lock element has a

height appreciably greater than that of the second lock element and in that its two ends are

engaged in two respective cups, secured to the second mold, whereby the moving part supporting

the second lock element bears over substantially the entirety of its height against the rotation

spindle.

8. (Currently Amended) The molding device as claimed in any one of claims 1 to 7,

characterized in that claim 1, wherein the first and second hook-shaped lock elements [[(15, 16)]]

extend continuously over their entire height.

9. (Currently Amended) The molding device as claimed in any one of claims 1 to 7,

characterized in that claim 1, wherein at least the second hook-shaped lock element [[(16)]]

extends discontinuously over its entire height and comprises a multiplicity of hooks [[(39)]]

separated from one another [[(40)]] and distributed over its entire height.

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10. (Currently Amended) The molding device as claimed in any one of claims 4 to 9,

characterized in that claim 4, wherein the rotation spindle is arranged in the form of an eccentric

spindle and in that pivot control means are associated with it,

whereby the spindle is able to occupy two angular positions with respect to the moving

part, namely a position at minimum radius for which the moving part bears against the part of the

spindle that has a minimum radius and for which the moving part can be made to move toward

its locked position or toward its unlocked position and a position at a greater radius for which the

moving part bears against a part of the spindle that has a radius greater than the minimum radius

and for which the moving part, in the locked position, is immobilized in this position being

subjected to traction between the first and second mutually-engaged lock elements and the

rotation spindle.

11. (Currently Amended) The molding device as claimed in any one of claims 1 to

10 claim 1, this device being of the rotary carousel type, characterized in that wherein the

actuating means functionally associated with the second lock element comprise at least one

idling cam follower roller supported by part of the moving part situated beyond its bearing

surface with respect to the second lock element, said roller being able to collaborate with a fixed

guide cam positioned laterally with respect to the rotary carousel.

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12. (Currently Amended) The molding device as claimed in claim 11, characterized

in that wherein the actuating means for actuating the second lock element comprise a return

spring able to return the moving part to a position for which the second lock element is in the

catching position.

13. (Currently Amended) The molding device as claimed in claim 10, this device

being of the rotary carousel type, characterized in that wherein the means for controlling the

pivoting of the eccentric spindle comprise an idling cam follower roller supported, via a

transmission mechanism, by one end of said shaft, said roller being able to collaborate with a

fixed guide cam positioned laterally with respect to the rotary carousel.

14. (Currently Amended) The molding device as claimed in claim 13, characterized

10, this device being of the rotary carousel type, wherein the means for controlling the pivoting

of the eccentric spindle comprise an idling cam follower roller supported, via a transmission

mechanism, by one end of said shaft, said roller being able to collaborate with a fixed guide cam

positioned laterally with respect to the rotary carousel, and in that the means for controlling the

pivoting of the eccentric spindle comprise a return spring able to return said spindle to its

position of minimum radius.

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- 15. (Currently Amended) The molding device as claimed in any one of claims 1 to 14, characterized in claim 1, wherein that the first hook-shaped lock element is attached and fixed to the first half-mold.
- 16. (Currently Amended) The molding device as claimed in any one of claims 1 to 14, characterized in that claim 1, wherein the first hook-shaped lock element is formed as an integral part of the first half-mold.
- 17. (Currently Amended) The molding device as claimed in any one of claims 1 to 16, characterized in that claim 1, wherein the second hook-shaped lock element is attached and fixed to said moving part.
- 18. (Currently Amended) The molding device as claimed in any one of claims 1 to 16, characterized in that claim 1, wherein the second hook-shaped lock element is formed as an integral part of said moving part.
- 19. (Currently Amended) The molding device as claimed in any one of claims 1 to 16, characterized in that claim 1, wherein said pivoting surface in the shape of an arc of a circle for the moving part is supported by a mounting plate attached and fixed to the second half-mold.